SUBJECT USSR/MATHEMATICS/Differential equations CARD 1/1 PG - 85
AUTHOR KONONENKO V.O.
TITLE On the oscillations of non-linear systems with many degrees of freedom.
PERIODICAL Doklady Akad. Nauk 105, 664-667 (1955)
reviewed 6/1956

A method is given for determining periodic solutions of a system of differential equations of n degrees of freedom the coefficients of which are slowly varying almost periodic functions and the non-linear parts of which are multiplicated with a small parameter $\varepsilon$. The method is applicable if the stationary oscillations possible in the system essentially take place with one frequency. After the transformation of the starting system which corresponds to a principle-axes-transformation of the linear partial system, the solution is set up in the form of an asymptotic series in terms of powers of $\varepsilon$. Corresponding series are found for the slowly varying phases and amplitudes of the wanted solution. The coefficients of the series expansions are given as trigonometric double series. If these are determined, then the problem is reduced to the integration of the defining equations for phase and amplitude, a problem which can be reduced to simple quadratures if amplitude and phase occur in separable form. Slightly non-linear systems with purely periodic coefficients are contained as a special case in the considered starting system and give certain simplifications of the method of solution.

KONONENKO, U.O.

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25(2) PHASE I BOOK EXPLOITATION SOV/2563

Akademiya nauk SSSR. Institut mashinovedeniya. Seminar po teorii mashin i mekhanizmov

Trudy, tom 18, vyp. 71 (Transactions of the Institute of Mechanical Engineering, Academy of Sciences, USSR. Seminar on the Theory of Machinery and Mechanisms, Vol 18, No. 71) Moscow, Izd-vo AN SSSR, 1958. 89 p. Errata slip inserted. 2,500 copies printed.

Ed. of Publishing House: M.L. Dobshits; Tech. Ed.: N.F. Yegorova; Editorial Board: I.I. Artobolevskiy, Academician (Resp. Ed.); G.G. Baranov, Doctor of Technical Sciences, Professor; V.A. Gavrilenko, Doctor of Technical Sciences, Professor; V.A. Zinov'yev, Doctor of Technical Sciences, Professor; A.Ye. Kobrinskiy, Doctor of Technical Sciences; N.I. Levitskiy, Doctor of Technical Sciences, Professor; N.P. Rayevskiy, Candidate of Technical Sciences; L.N. Reshetov, Doctor of Technical Sciences, Professor; and M.A. Skuridin, Doctor of Technical Sciences, Professor.

PURPOSE: This collection of articles is intended for scientific research workers and engineers.

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Transactions (Cont.) SOV/2563

COVERAGE: This collection of articles deals with the following topics: thread control in textile machines, pneumatic devices with diaphragms, resonance in centrifugal pumps, the dynamics of electrically driven machinery, synthesis of four-link transmission mechanisms, and the design of link mechanisms. No personalities are mentioned. References follow several of the articles.

TABLE OF CONTENTS:



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Examples of the calculations involved are presented.



Equations for the motion of a centrifugal vibrator are presented, and the basic interrelations between the parameters of the system and the regimes of the motion are established. Simplified geometrical criteria for steady motion and the effect of mechanical characteristics are presented.



The author derives a general equation for investigating the dynamics of d-c electromechanical systems, with consideration being given to electromagnetic processes in the motor. A comparison is made with other simplified methods which take only the static characteristics of the motor into consideration.



This article is the continuation of an article published by the authors in

KONONENKO, V. O.

V. O. Kononenko, "Some New Problems of Vibration Theory in Machines."

paper presented at the 2nd All-Union Conf. on Fundamental Problems in the Theory of Machines and Mechanisms, Moscow, USSR, 24-28 March 1958.

SOV/24-58-7-13/36

AUTHOR: Kononenko, V.O. (Moscow)

TITLE: Resonance Vibrations of a Rotating Shaft Carrying a Disc (Rezonansnyye kolebaniya vrashchayushchegosya vala s diskom)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, 1958, Nr 6, pp 87 - 90 (USSR)

ABSTRACT: Transverse vibrations of a rotating shaft carrying a disc are considered. These vibrations occur when the system is not balanced. The system under consideration is illustrated in Figure 1 and the equations describing its motion are given by Eqs(1). In these equations m is the mass of the disc, I is its moment of inertia, c is the rigidity of the shaft and $\rho$ is the off-centre distance. The system of equations is non-linear and an approximate method of solution (Ref 2) is used. It is assumed that the vibrations do not differ very much from harmonic vibrations and that the angular velocity changes very slowly. In that case all the terms on the right hand side of Eqs (1) can be looked upon as small. Using the substitutions given by Eqs (2), the system of Eqs (3) is obtained in which $\varepsilon$ is a small parameter. The solution is given by Eqs (6) and (7).

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SOV/24-58-7-13/36

Resonance Vibrations of a Rotating Shaft Carrying a Disc

An expression for L is given by Eq (8). Each positive root of Eq (8) corresponds to a stationary motion of the rotor with a vibration amplitude "a" calculated from Eq (7). A detailed discussion is given of the stability of the motion described by the above equations. There are 3 figures and 3 Soviet references.

SUBMITTED: April 18, 1958

Card 2/2

KONONENKO, V.O. (Moscow)

Resonance vibrations of a rotating shaft fitted with a disk.
Izv. AN SSSR. Otd.tekh.nauk no.7:87-90 Jl '58. (MIRA 11:9)
(Shafting--Vibration)

AUTHOR: Kononenko, V. O. (Moscow) SOV/24-58-8-10/37

TITLE: On Parametric Resonance of Fractional Order (O parametricheskom rezonanse drobnogo poryadka)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1958, Nr 8, pp 62-65 (USSR)

ABSTRACT: The author considers resonance phenomena in oscillatory systems whose motion is described by differential equations with almost periodic coefficients when the modulation parameter on the fundamental frequency is of arbitrary depth. The investigated oscillatory systems occur in the motions of mechanisms of instruments working on a vibrating base (Ref 1) and in problems of the motions of charged particles in accelerators (Refs 2 and 3). The fundamental differential equation discussed is:

$$d^2x/dt^2 + (b_o + b_1 \cos \omega t + c \cos \nu t)\, x = 0 \qquad (1)$$

in which the frequencies $\omega$ and $\nu$ may be incommensurable, the positive coefficients $b_o$ and $b_1$ can take any values and the coefficient $c$ is assumed small in comparison with $b_o$ and $b_1$. This equation is solved

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with the aid of Mathieu functions, and only those motions of the system are considered for which the frequency $\Omega$ is near to $\alpha$ where $\pm i\alpha$ are the characteristic indices associated with the Mathieu functions. For $\alpha = \Omega$ and also for values of $\Omega$ near to $\alpha$ the motions are unstable and the corresponding states of the system are resonance states. Resistive forces (friction) have a considerable influence on processes characterised by parametric resonance of fractional order. The solution of the equation

$$\frac{d^2x}{dt^2} + k\frac{dx}{dt} + (b_0 + b_1 \cos \omega t + c \cos \gamma t)\, x = 0 \quad (21)$$

in which the second term is considered a small frictional term proportional to the velocity can be obtained by the same method as that for Eq.1. It is found that the friction reduces the area of parametric resonance. The phase difference $\delta$ in the equation:

$$\frac{d^2x}{dt^2} + \left[b_o + b_1 \cos \omega t + c \cos (\gamma t + \delta)\right] x = 0 \qquad (23)$$

causes the domain of parametric resonance to be distorted.
There are 3 figures and 6 references, 4 of which are Soviet, 1 German and one is a Russian translation of an English textbook.

SUBMITTED: April 24, 1958

1. Resonance--Mathematical analysis 2. Instruments--Vibration

KONONENKO, V.O.

Resonance properties of centrifugal vibrators. Trudy Inst.mash.; Sem.po teor.mash. 18 no.71:22-42 '58. (MIRA 12:1)
(Vibrators)

Kononenko, V. O.

24(6); 25(2) P.2 PHASE I BOOK EXPLOITATION SOV/3241

Akademiya nauk SSSR. Institut mashinovedeniya

Problemy prochnosti v mashinostroyenii, vyp. 5 (Problems of Strength in Mechanical Engineering, Nr 5) Moscow, Izd-vo AN SSSR, 1959. 69 p. Errata slip inserted. 2,500 copies printed.

Ed.: F. M. Dimentberg, Doctor of Technical Sciences; Ed. of Publishing House: G. B. Gorshkov; Tech. Ed.: I.F. Koval'skaya.

PURPOSE: This book is intended for analysts and designers of turbomachines and vibration machines. It will also be of interest to teachers and students working on the problems of vibrations in machines.

COVERAGE: This book contains 4 articles on vibrations in machines. An article by V. O. Kononenko discusses the problem of nonstationary vibrations with respect to a general vibrational system, taking into account the connection with the motor. Essentially the same problem but with respect to a rotating shaft is studied in the article by L. A. Rastrigin. In the article by S. M. Grinberg, a study is made of the nonstationary process in a case of an arbitrary problem of the law of excitation frequency variation. Finally, in the article

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4-9-00

KONONENKO, V. O.

PHASE I BOOK EXPLOITATION SOV/3416

Akademiya nauk SSSR. Institut mashinovedeniya

Voprosy prochnosti materialov i konstruktsiy (Problems of Strength of Materials and Structures) Moscow, 1959. 399 p. Errata slip inserted. 3,200 copies printed.

Resp. Ed.: D. N. Reshetov, Professor, Doctor of Technical Sciences; Ed. of Publishing House: G. B. Gorshkov; Tech. Ed.: S. T. Shikin.

PURPOSE: This book is intended for engineers and scientists concerned with the problems of the strength of materials and construction.

COVERAGE: The book contains 28 articles on the strength of materials in general and of machine construction in particular. This collection was prepared under the direction of the Institute of Mechanical Engineering of the AS USSR in honor of Sergey Vladimirovich Serensen, one of the founders and directors of the national school of strength of materials, who recently completed 30 years of scientific activity. The preface gives a short sketch of his life and professional activities. The collection is divided into two parts. The first part contains 13 articles on general problems of strength and the strength of machine construction materials. The second part contains 15 articles on dynamics and calculation of strength and rigidity. There are references at the end of each article.

PART II. DYNAMICS AND CALCULATION OF STRENGTH AND RIGIDITY



AVAILABLE: Library of Congress

Card 6/6

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6-27-60

SOV/179-59-2-11/40

AUTHOR: Kononenko, V. O. (Moscow)

TITLE: On Resonant Processes in the Vibrating System Containing a Motor (O rezonansnykh protsessakh v kolebatel'noy sisteme, soderzhashchey dvigatel')

PERIODICAL: Izvestiya Akademii nauk SSSR OTN, Mekhanika i mashinostroyeniye, 1959, Nr 2, pp 75-80 (USSR)

ABSTRACT: Vibration of a system with n degrees of freedom is described by the author. The vibration is produced by rotation of the mass m . The whole system (Fig 1) contains masses $m_1, \ldots, m_n$ and rigid bodies $c_1, \ldots c_n$ . One of the masses, for instance, $m_1$ , contains the mass of a motor , the rotor of which has a moment of inertia I and the mass m at the distance r from the axis of rotation. It is assumed that the characteristics of the motor $L(\varphi)$ is known and that $m/m_i \ll 1$ $(i = 1, 2, \ldots n)$ . The resistance forces of the motion are proportional to every coordinate of $\dot{\varphi}$ , $\dot{y}_1, \ldots \dot{y}_n$ . The equation of motion

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On Resonant Processes in the Vibrating System Containing a Motor

of such a system is expressed by the Eq (1) (Refs 1, 2). To find its solution and in order to minimise the values of its right term, the following assumptions are made: the vibrations are harmonic, the angular velocity $\dot{\varphi}$ does not exceed the period, the frequency $\omega_s$ of the specific vibration of the system is the root of its characteristic equation, and the value $\pm k\,\omega_s$ $(k = 2, 3, \ldots)$ does not apply. The system (1) can be represented as a collection of independent vibrators, each satisfying the Eq (2). Then, from Eqs (1) and (2), the expression (3) can be derived, where the function $\Phi_s$ is defined as Eq (4). If $\omega_s$ is the specific frequency of the system, then Eq (5) can be defined, the solution of which can be expressed as Eq (6), from which the stationary vibration in the resonance region is obtained as Eqs (7), (8) and (9). The solution of the problem can be expressed in the general form as Eq (10). As $\Omega$ and $a_s$ can have several solutions, only those are chosen which correspond to a stationary condition of the system. These are expressed as Eqs (11), (12) and (13), from which the Eq (13), written in the form of Eq (14), is the most signi-

ficant. This is illustrated in Fig 2, where the graphs of the engine characteristic $L(\Omega)$ and of the function $S_s(\Omega)$ are shown. The points of intersection 1, 2 and 3 characterise the stationary values of $\Omega$, according to Eq (9) (the points 1 and 3 represent stable motion, point 2, unstable). A distribution of the stable and unstable regions in the resonance zone characterizes the motion of the system. The most interesting cases are: a) receding stable vibration and the curve (8) cannot be obtained; (b) the resonance curve (8) for stable motion at quasi-stationary increase of $\Omega$ can differ greatly from the resonance curve at the diminishing value of $\Omega$ (Fig 3). In practice, 2 or more resonance regions can occur. Therefore, the characteristic graphs of the motor and the graph $S_s(\Omega)$ for the resonance zones (Fig 4) should be closely studied. The calculations show that the character of the resonance depends on the properties of the motor and on the reserve of power of the motor . A part of the latter can transform into the resonance which can be satisfied by the velocity $\Omega$ and frequency $a_s$, as illustrated in Fig 4, where the graphs

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On Resonant Processes in the Vibrating System Containing a Motor

$S_1$ and $S_2$ are shown. Here the motor is taken with the characteristic curve $L(\Omega)$. Its stable motion is shown by the point B. The transformation of the system into the second resonance is shown in Fig 5. This was obtained from Eq (6) for $s = 2$ and for initial conditions corresponding to points N and P in Fig 4. Generally, the variations of $\Omega$ depend on the reserve of power of the motor. This can be shown as a segment $l$ in Fig 4. There are 5 figures and 8 references, of which 7 are Soviet and 1 is French.

SUBMITTED: December 3, 1958.

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KONONENKO, V.O.

Passing of a mechanical system containing an engine through the resonance zone. Probl.proch.v mashinostr. no.5:5-9 '59. (MIRA 13:1)

(Vibration) (Resonance)

KONONENKO, V.O., prof., doktor tekhn. nauk.

Effect of engine performance on the vibrational strain of machines. Vest. mash. 39 no.1:53-56 Ja '59. (MIRA 12:1)
(Machine tools--Vibration)

KONONENKO, V.O. (Moskva)

A form of Routh-Hurwitz criteria. Izv.AN SSSR.Otd.tekh.nauk.Mekh. i mashinostr. no.4:125-128 Jl-Ag '60. (MIRA 13:8)
(Motion)

KONONENKO, V.O. (Moskva)

Interaction of a parametric vibrating system with an energy source. Izv.AN SSSR. Otd.tekh.nauk.Mekh.i mashinostr. no.5:141-146 S-O '60. (MIRA 13:9)

(Vibration)

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S/179/60/000/006/011/036
E191/E135

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AUTHOR: Kononenko, V.O., (Moscow)

TITLE: Forced Oscillations of a System Containing a Source of Energy in the Presence of a Small Non-Linearity

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Mekhanika i mashinostroyeniye, 1960, No. 6, pp. 80-85

TEXT: The mechanical system considered consists of a mass represented by a slab mounted on a spring, whose characteristic function contains a small non-linear term added to a large linear term. The slab carries a motor, whose shaft has an unbalanced mass and so produces unbalanced forces when rotating. The rotor of the motor has a moment of inertia, a driving torque and a load torque, both of which are functions of the shaft speed. The slab motion against its spring constraint is assumed one-dimensional. The driving torque, load torque and damping function of the linear motion, are assumed known. The unbalance mass is assumed small, compared with the slab mass and the difference between the driving and load torques is assumed small. The equation of motion of this

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Forced Oscillations of a System Containing a Source of Energy in the Presence of a Small Non-Linearity

system is formulated. It is assumed that the oscillations will be near harmonic and the angular velocity of the motor shaft will vary slowly compared with the period of oscillation. In the sense that the system is mechanically self-contained, its oscillations can be thought of as self-excited but the designation "forced oscillations" is used to signify the similarity of systems which are examined without consideration of the properties of the source of energy. The solutions of the problem are stated (Eq. 2). The angle of shaft rotation and the linear displacement of the slab as well as its linear velocity are defined in terms of a basic uniform rotation for the shaft and a basic harmonic oscillation for the slab on which are superimposed additional small periodic functions. Asymptotic methods of solutions are used to determine the parameters (angular velocity, amplitudes) of the basic motions. Under steady state conditions the angular velocity of shaft rotation is constant as is the amplitude of slab motion. This motion is sinusoidal with

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Forced Oscillations of a System Containing a Source of Energy in the Presence of a Small Non-Linearity

a period exceeding that of the shaft rotation by a constant amount. The angular velocity of the shaft is not arbitrary but several solutions exist determined by the properties of the motor. The steady state solutions are examined for stability by the methods of I.G. Malkin (Ref.12). It is shown that by changing the nature of the torque as a function of the speed of the motor it is possible to change stable into unstable states and vice versa. An example is given wherein the non-linear term in the spring characteristic is a cubic term. The motion of such a system has been studied in detail when the frequency of the exciting force is a given constant. In the present system, two cases of non-linearity are considered, namely a stiffening spring and a relaxing spring (cubic term positive or negative, respectively). The differences between the present case and the well known resonance curve of a non-linear system are discussed. The discontinuous changeover between two states depends on the

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Forced Oscillations of a System Containing a Source of Energy in the Presence of a Small Non-Linearity

characteristics of the surplus torque as a function of the motor speed. In the case of a relaxing spring, when the surplus torque decreases with increasing motor speed, the unstable condition may be transferred from the rising branch of the resonance curve to its falling branch. The difference between the stability of the system at a prescribed motor speed and a system with a self-adjusting motor speed is discussed. A system unstable at a set speed can become stable. The superimposed periodic deviations from the basic motions are shown to be small for the system considered.

There are 4 figures and 13 references: 12 Soviet and 1 English.

SUBMITTED: May 18, 1960

Card 4/4

KONONENKO, V.O. (Moskva); KORABLEV, S.S. [Korabl'ov, S.S.] (Moskva)

Vibration of a shaft with disks, allowing for the interaction of the engine with the vibratory system. Prykl.mekh. 6 no.2:129-137 '60. (MIRA 13:8)

1. Institut mashinovedeniya AN SSSR.
(Shafting--Vibration)

KONONENKO, V. O.

"Some autonomous problems of the theory of nonlinear vibrations."

Paper presented at the Int. Symposium on Nonlinear Vibrations, Kiev USSR, 9-19 Sep 61

Institute for the Research of Machines, Academy of Sciences of the USSR, Moscow, USSR

KONONENKO, V.O. (Moskva)

Interaction of a natural-vibration system and the power source. Izv. AN SSSR.Otd.tekh.nauk.Mekh.i mashinostr. no.2:50-54 Mr-Ap '61. (MIRA 14:4)

(Vibration)

S/179/61/000/005/009/022
E191/E481

AUTHORS: Kononenko, V.O. and Frolov, K.V. (Moscow)

TITLE: On the interaction between a nonlinear vibrating system and an energy source

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Mekhanika i mashinostroyeniye. v.5, 1961, 69-76

TEXT: Characteristic features of the interaction between a nonlinear oscillating system and a source of energy were examined by S.S.Korablev (Ref.1: Trudy IMASh AN SSSR, 1959, v.1) and one of the present authors, V.I.Kononenko (Ref.2: Izv. AN SSSR, OTN, Mekhanika i mashinostroyeniye, 1960, no.6). Some of the results obtained were verified by experiment with a mechanical model. The present paper reports the examination of the problem with the help of an electronic model simulating the nonlinear mechanical oscillating system considered in the papers quoted above. Briefly, the mechanical system has a nonlinear elastic force obeying a law with a linear and a cubic term. The vibrations are excited by the inertia forces of an unbalanced mass rotated by a motor with a

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with a known torque/speed characteristic. Changing over to electronic models became possible after verification, furnished in the earlier experiments already quoted, that the static characteristics of energy sources could be substituted in solving the dynamic problem. Although electronic models inherently embody a convenient variability of parameters, the range investigated did not exceed that adopted in the author's earlier paper (Ref.2) when constructing the approximate solutions of nonlinear equations. The only exception was the parameter of nonlinearity which is the constant factor in the cubic term in the relation between the force and the displacement. This was varied in a larger range to reveal the behaviour of the system in the presence of a substantial nonlinearity. The scale factors are derived from the permissible maxima of the electrical variables and introduced into the equations of motion of the mechanical system thus deriving a system of two equations for which the analogue circuit was devised. The sine and cosine functions required the special blocks designed by V.S.Tarasov and his team (Ref.3: Nauchn.-tekhn. informats. vyl. LPI, 1959, no.5; and Ref.4: Elektrichestvo, 1960, no.4). The programme of the investigation

had three aims. (a) The study of the steady-state conditions, where it is described by a harmonic displacement of the mass at the forced frequency on which a small periodic function of time is superimposed and the motion of the exciting unbalance has another small periodic function superimposed upon a uniform rotation. In particular, the nature of steady-state conditions with substantially increased nonlinearity and at a substantial departure from resonance was of interest as representing a violation of the conditions on which the approximate analytical solutions were based. (b) The clarification of non-steady state which arises near the limits of the stability region when the system changes over from one steady-state condition to another. (c) The discovery of any peculiarities in the motion of the system when the steady-state criteria established analytically are not fulfilled. The effect of the exciting motor characteristic was the centre of attention. The slope of the characteristic curve could be easily varied. The technique of experimentation permitted the construction of resonance curves for rising and falling values of the forcing frequency separately. Transient

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conditions arising in switching on did not form part of the investigation but those which occurred between two steady states were examined. Owing to the pronounced difference between the resonance phenomena in systems with stiffening and unstiffening nonlinearity terms in the restoring force equation, each case was examined separately. The results of the experiments are given in graphs where the amplitude is plotted against the forcing frequency and in oscillograms of displacement against time (for the non-steady states). Without revealing any new salient features, the results of these electronic simulator tests confirm the basic propositions about the properties of nonlinear systems with nonideal sources of energy found earlier (Ref.2). Emerging from the limitations imposed by the mathematical methods used earlier did not yield substantially new results. There are 12 figures and 4 Soviet-bloc references.

SUBMITTED: June 27, 1961

KONONENKO, V.O., doktor tekhn.nauk, prof.

Problems of general mechanics at the 10th International Congress on Applied Mechanics. Vest. mash. 41 no.6:77-78 Je '61.
(MIRA 14:6)

(Mechanics, Applied--Congresses)

KONONENKO, V. O.

"Vibration of a solid body about the center mass,"

Report presented at the Conference on Applied Stability-of-Motion Theory and Analytical Mechanics, Kazan Aviation Institute, 6-8 December 1962

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S/179/62/000/003/006/015
E191/E413

AUTHORS: Kononenko, V.O., Frolov, K.V. (Moscow)

TITLE: On the resonance properties of a parametric oscillating system

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Mekhanika i mashinostroyeniye, no.3, 1962, 73-80

TEXT: Reference is made to a previous paper by the senior author (Ref.1: Izv. AN SSSR, OTN, Mekhanika i mashinostroyeniye, no.5, 1960) wherein steady-state conditions were examined subject to limitations determined by the approximate methods of analysis employed. In the present paper, a parametric oscillating system with a low depth of parameter modulation is considered on the assumption that the source of energy which imposes the periodic (or almost periodic) variation of the parameter of the system can interact with the oscillating system so that the oscillations become dependent on the properties of the energy source. The physical oscillating system considered is an elastic bar subject to a periodic force in its axial direction, so that its bending

stiffness changes periodically. Under certain conditions, as a result of the periodic variations of stiffness, parametric oscillations of the bar in the direction transverse to its axis take place. Details of the system are given in Ref.1. The equations of motion are formulated, and its simulation by an analogue computer is illustrated with the help of a block diagram and discussed. The equations of motion contain a term with the cubed transverse coordinate. The coefficient of this term is the nonlinearity parameter which, in the present paper, is examined within a wider range than before. The purposes of the simulator studies were (a) to establish the motion of the system under steady-state conditions at positive, negative and zero values of nonlinearity; (b) to clarify the nature of the nonstationary conditions of motion arising near the boundaries of stability and corresponding to the transition from one steady state to another and (c) to observe the motion of the system when the conditions of stability are not fulfilled. The energy source characteristic curve is conceived as a linear function of the torque against speed of a motor which imposes a periodic force on the bar. The

slope of this curve is among the important physical properties of the system. The nonlinear restoring force is denoted as "hard" when the nonlinearity parameter is positive and as "soft" when the parameter is negative. The results of the analogue computer simulation are illustrated and discussed, selecting the behaviour in the resonance region where the interaction of the oscillating system with the source of energy is most pronounced. The three cases of hard, soft and zero restoring force are considered separately. The main result of the present investigation is a broader view of the nonlinearity parameter limiting the amplitude of parametric oscillations. In systems considered here, the factor which limits the amplitude of parametric oscillations is the nonlinear link between the energy source and the oscillating system. This link varies with the variation of the steepness of the characteristic curve of the energy source, so that parametric oscillations with limited amplitudes can be obtained by an appropriate variation in the steepness of the energy source curve. There are 11 figures.

SUBMITTED: December 26, 1961

L 14261-63 EWT(1)/BDS AFFTC/ASD

ACCESSION NR: AP3004797 S/0179/63/000/004/0023/0030

AUTHOR: Kononenko, V. O. (Moscow)
[redacted]

50

TITLE: On oscillations of a body about its centroid

SOURCE: AN SSSR. Izv. Otd. tekh. nauk. Mekhanika i mashinostroyeniye, no. 4, 1963, 23-30

TOPIC TAGS: circumcentroid oscillation, forced oscillation, nonlinear oscillation, oscillation-component interaction, system oscillation, oscillation stability, oscillation equation

ABSTRACT: The oscillation of a body joined by elastic springs to a stationary frame and subjected to the action of external moments is investigated. The center of mass of the body is immovable, and the moments cause directly oscillations about only one coordinate axis. The case of indirect excitation of oscillations about other coordinate axes is discussed in nonlinear formulation (i.e., the oscillation equations are not linear as related to coordinates and their derivatives). The major emphasis is placed on the establishment of conditions under which oscillations are excited about those coordinate axes about

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ACCESSION NR: AP3004797

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which no oscillations would take place if the linear formulation were applied. A system of symmetrically arranged equal-length springs with perfect hinges on the ends but with different spring constants is considered. The motion of the body is described by Euler's equations and kinematic relationships which reflect the multiple nonlinear interrelations between coordinates of the system (e.g., the interaction of component oscillations). The stability conditions for independent component oscillations of the symmetrized systems and of an axisymmetrical body are investigated, and the effects of amplitude oscillations excited by external moments, of friction, of frequency perturbance, and of the magnitude of inertia moments are discussed. Expressions determining these stability conditions are derived, specified for the cases of a disk, a sphere, and a cylinder, and shown in a table. Orig. art. has: 1 figure, 1 table, and 21 formulas.

ASSOCIATION: none

SUBMITTED: 01Mar63 DATE ACQ: 06Sep63 ENCL: 00

SUB CODE: AP NO REF SOV: 004 OTHER: 000

Card 2/2

KONENKOV, D. M.

USSR/Geology

Card 1/1 Pub. 45 - 7/15

Authors : Konenkov, D. M.

Title : Some peculiarities of the formation of the Donetz rocky crest

Periodical : Izv. AN SSSR. Ser. geog. 5, 68 - 72, Sep - Oct 1954

Abstract : A study of the materials composing the earth's crust in the Donets region, as well as other features involved, leads to the conclusion that the Donets ridge resulted from the accumulation of a thick layer of deposits plus a folding process in the surface and a general rise in the earth's crust, there being no evidence of the formation resulting from the wearing down of a mountainous area. Sixteen Russian and Soviet references ( 1883 - 1953).

Institution: Dnepropetrov State University

Submitted: .....

KONENKOV, D.M.

Age and origin of sands of the Poltavian stage. Biul.MOIP.Otd.
geol. 29 no.6:98-100 N-D '54. (MLRA 8:2)
(Geology, Stratigraphic)

KONENKOV, D. M.

USSR/Geology - Hydrogeology

Card : 1/1

Authors : Konenkov, D. M.

Title : Change in the physico-geological condition of the Dnieper river in connection with the hydrotechnical constructions

Periodical : Dokl. AN SSSR, 96, Ed. 5, 1043 - 1046, June 1954

Abstract : The determining factor in the development of rivers is explained. The physico-geological changes experienced by the great Dnieper river as result of the construction of numerous hydroelectric power plants and dams are described.

Institution : State University, Dnepropetrovsk

Presented by: Academician, V. A. Obruchev, April 3, 1954

98-58-4-16/18

AUTHORS: Konenkov, G.I., Sorokin, A.V., Engineers

TITLES: First Science and Technology Conference of Young Specialists of the "Gidroenergoprovekt" institute (Pervaya nauchno-tekhnicheskaya konferentsiya molodykh spetsialistov instituta "Gidroenergoproyekt")

PERIODICAL: Gidrotekhnicheskoye Stroitel'stvo, 1958, Nr. 4, p 61 (USSR)

ABSTRACT: The authors briefly describe the conference which was arranged by Komsomol organizations for the purpose of furthering and interchanging the scientific and technical knowledge of young specialists. Prof. Voznesenskiy, A.N., director of the Institute, and Makov, Yu. S., engineer, read reports entitled respectively: "Problems of Gidroenergoproyekt in the Development of Soviet Water Power and in the participation of Youth in its Work" and "Participation of Youth in the Public Works of Leningidep". Several other reports were made by unnamed leading specialists in the fields, and 112 reports were read by unnamed young specialists.

AVAILABLE: Library of Congress

Card 1/1 1. Water power-Study and teaching 2. Study and teaching-USSR

USSR / Cultivated Plants. Fodders.



Abs Jour: Ref Zhur-Biol., No 6, 1958, 25098

Author : Konenkov, G.S.
Inst : Not given
Title : Corn Stubble Sowing at the Benyakonskaya Agricultural Experimental Station

Orig Pub: V ab.: Kukuruza v BSSR. Minsk, AN BSSR, 1957, 331-334

Abstract: At the Benyakovskaya Experimental Station in Grodnenskaya Oblast' the Krasnodarskaya 1/49 corn yield consisted of 205 centners per ha. of green stuff (4100 food units), yellow lupine-green mass 315 centners per ha, the food units were 3780. -- A.T.

Card 1/1

KONENKOV, K. S.

K. 2

5001

Testing of rubber for low-temperature stability by measurement of loss of elasticity. G. M. Bartener, S. B. Ratner, N. M. Novikova and R. S. Konenkov (*Khim. Prom.*, 1954, 4, 224—226; *Rubber Chem.* ~~Technol.~~, ~~1956~~, 28, 711—717).—An eccentric bearing is operated by a motor and actuates a rod which transmits a sinusoidal application of the load to a cylindrical rubber specimen held in a socket between springs. The deformation and load are both measured by mirror deflection observations. Measurements are made with temp. increments of 3—4° from −70° upwards. J. S. C.

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M. A. YOUTZ

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KARIENKOV, K. S.

[illegible] rooms bomb for determination of [illegible] [illegible] solids and gases. K. S. [illegible]

AUTHORS: Slezinger, I. I., Konenkov, K. S., Petrova, O. P. SOV/32-24-10-41/70

TITLE: An Apparatus for Determining the Mechanical Properties of Rocks (Pribor dlya opredeleniya mekhanicheskikh svoystv gornykh porod)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol 24, Nr 10, pp 1270-1271 (USSR)

ABSTRACT: At the institute mentioned under Association together with the Konstruktorskiy byuro neftyanogo priborostroyeniya (Construction Bureau of Petroleum Machinery) an apparatus was devised for the determination of the hardness of rocks. At the same time also the extent of the deformation of the sample can be determined. An automatic recording of the data is made by the apparatus. As may be seen from a diagram given the apparatus consists of three main parts: the loading device, the electrical indicator for the deformation measurement, and a small stage for fixing the sample. From a diagram of the deformation of a rock sample as a function of the load it may be seen that in spite of a step-wise displacement of the drum the recording is sufficiently accurate. The apparatus described may also be used for testing other non-metallic materials (rubber, ebonite, plastics etc.). There are 2 figures.

Card 1/2

SOV/32-24-10-41/70

An Apparatus for Determining the Mechanical Properties of Rocks

ASSOCIATION: Institut nefti Akademii nauk SSSR (Institute of Petroleum, AS USSR)

Card 2/2

RATNER, S.B., kand.fiz.-mat.nauk; NOSOV, Yu.A., inzh.; KONENKOV, K.S., inzh.

Measuring the radial compression force of rubber sealings resulting from temperature drops. Vest. mash. 38 no.9:24-26 S '58. (MIRA 11:10)

(Sealing (Technology)) (Rubber goods--Testing)

YUSHKIN, V.V.; KONENKOV, K.S.

Apparatus for studying gas-condensate fields. Trudy VNIIGAZ no.17: 33-51 '62. (MIRA 15:12)
(Condensate oil wells—Equipment and supplies)

GUSHCHIN, N.S.; VYBORNOVA, Ya.I.; STEPANOVA, G.S.; KONENKOV, K.S.

Modernization of the PVT-7 bomb. Trudy VNIIGAZ no.17:259-264 '62.
(MIRA 15:12)

(Condensate oil wells--Equipment and supplies)

ALEKSANDROV, A.M., inzh.; BAZHENOV, V.S., inzh.; BOBROVNIKOV, B.N., inzh.; VAGANOV M.P., inzh.; GUREVICH, B.M., inzh.; DZHIBELLI, V.S., inzh.; DROBAKH, V.T., inzh.; ISAKOVICH, R.Ya., kand. tekhn. nauk; KAPUSTIN, A.G., inzh.; KONENKOV, K.S., inzh.; MININ, A.A., kand.tekhn.nauk; PEVZNER, V.B., inzh.; PESKIN, G.L., inzh.; PORTER, L.G., inzh.; PRYADILOV, A.N., inzh.; SLUTSKIY, L.B., inzh.; FEDOSOV, I.V., inzh.; FRENKEL', B.A., inzh.; TSIMBLER, Yu.A., inzh.; SHUL'GIN, V.Kh., inzh.; ESKIN, M.G., kand. tekhn. nauk; VOROB'YEV, D.T., inzh. [deceased]; SINEL'NIKOV, A.V., kand. tekhn. nauk; SHENDLER, Yu.I., kand. tekhn. nauk, red.; NESMELOV, S.V., inzh., zam. glav. red.; NOVIKOVA, M.M., ved. red.; RASTOVA, G.V., ved. red.; SOLGANIK, G.Ya., ved. red.; VORONOVA, V.V., tekhn. red.

[Automation and apparatus for controlling and regulating production processes in the petroleum and petroleum chemical industries] Avtomatizatsiia, pribory kontrolia i regulirovaniia proizvodstvennykh protsessov v neftianoi i neftekhimicheskoi promyshlennosti. Moskva, Gostoptekhizdat. Book 3. [Control and automation of the processes of well drilling, recovery, transportation, and storage of oil and gas] Kontrol' i avtomatizatsiia protsessov bureniia skvazhin, dobychi, transporta i khraneniia nefti i gaza. 1963. 551 p. (MIRA 16:7)

(Automation)

(Petroleum production--Equipment and supplies)

ACCESSION NR: AR4025722 S/0081/64/000/002/D046/D046

SOURCE: RZh. Khimiya, Abs. 2D42

AUTHOR: Tabunshchikov, O. K.; Konenkov, K. S.

TITLE: An apparatus for investigation of the phase equilibria of hydrocarbon systems at low temperatures

CITED SOURCE: Tr. Vses. n.-i. in-ta prirodn. gazov, vyp. 17/25, 1962, 265-269

TOPIC TAGS: hydrocarbon, phase equilibrium, low temperature phase equilibrium, gas liquid equilibrium

TRANSLATION: An apparatus is described which permits the study of the phase equilibria of hydrocarbon systems at a pressure of 300 atmospheres and a temperature up to -100C. The basic part of the instrument is a high pressure bomb, which is placed in a cryostat with an adjustable temperature. The phase equilibrium of a gas-liquid mixture is obtained by mixing the mixture with a TsEN-IM circulating pump. The temperature is measured with a copper-constantan thermocouple. The optical system permits the quantity of the liquid and gaseous phases which are formed in the bomb after obtaining an equilibrium to be determined visually. The bomb is provided with connect-

Card 1/2

ACCESSION NR: AR4026722

ing pipes, through which tubes are passed for sampling the phases during the analysis.
L. Reznitskiy

DATE ACQ: 03Mar64 SUB CODE: OC ENCL: 00

Card 2/2

KONENKOV, S., narodnyy khudozhnik SSSR, laureat Leninskoy premii

Man is the master of earth., IUn.nat. no.3:1-3 Mr '63.
(MIRA 16:4)
(Conservation of natural resources)

S/046/60/006/01/09/033
B008/B011

AUTHOR: Konenkov, Yu. K.

TITLE: On Normal Waves With Flexural Vibrations of a Plate 26

PERIODICAL: Akusticheskiy zhurnal, 1960, Vol. 6, No. 1, pp. 57 - 64

TEXT: The present paper deals with the investigation of the propagation of flexural vibrations along an infinite elastic band with width H and thickness h. The following cases are dealt with: the plate margins are free, fixed, and with articulate support. Corresponding dispersion equations are derived and solved (Figs. 1 - 6). In completion of theoretical considerations, experiments were made on a 180 cm long aluminum band. /C
The parameters of the band were: $\rho = 2.65$ g/cm$^3$, $E = 705 \cdot 10^{11}$ dyn/cm$^2$, $\sigma = 1/3$, $h = 0.3$ cm, $H = 5$ cm. ($\rho$ = thickness of the material). The method described by N. S. Ageyeva in Ref. 1 was applied. The excitation of the band vibrations was made with the aid of a piezoelectric vibrator with a frequency of 12 kc/sec. With an asymmetrical excitation the author obtained the wave form of Fig. 7, and with a symmetrical one, the

Card 1/3

wave form shown in Fig. 8. The normal zero wave was not established, as the conditions for its excitation were unfavorable. Figs. 7 and 8 also indicate the measurement results showing the distribution of the displacement over the width of the plate. The coordinate x is plotted on the vertical axis, and the amplitude of the displacement on the horizontal one. The table contains the distances between the nodes for different y-values (symmetrical excitation), and the calculated mean value of 5.37 cm. The same distance determined theoretically is 5.4 cm. Thus it was possible to establish a good agreement between theory and experiment. The occurrence of waves of other orders of magnitude, which are inevitable under real conditions, was found to be the cause of a certain divergence. This circumstance gave rise to a distortion of the node lines (Table). The occurrence of a transversal resonance was observed, as expected, on the frequency with a critical value for the wave shown in Fig. 7. The wave did not propagate under this frequency and entered the class of inhomogeneous waves. The author thanks N. S. Ageyeva for /C

KONENKOV, Yu.K.

Rayleigh-type flexural wave. Akust.zhur. 6 no.1:124-126 '60.
(MIRA 14:5)

1. Akusticheskiy institut AN SSSR, Moskva.
(Sound waves)

S/046/62/008/002/016/016
B104/B108

AUTHOR: Konenkov, Yu. K. (Moscow)

TITLE: Calculation of the phase velocities of normal waves in bending vibrations of elastic bands

PERIODICAL: Akusticheskiy zhurnal, v. 8, no. 2, 1962, 241-242

TEXT: In a previous article (Akust. zh., 1960, 5, 1, 57-64) the author derived a transcendent equation whose solution made it possible to find the phase velocities of normal waves in bending vibrations of elastic bands. In the propagation of waves (symmetrical and antisymmetrical) in a plate fixed at the edges, these equations are

$$-\frac{\operatorname{ctg}\frac{\sqrt{\Omega_n}}{2}}{\operatorname{cth}\frac{\sqrt{2\Omega-\Omega_n}}{2}}=\frac{\sqrt{\Omega_n}}{\sqrt{2\Omega-\Omega_n}} \qquad (1)$$

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$$\frac{\operatorname{tg}\frac{\sqrt{\Omega_n}}{2}}{\operatorname{th}\frac{\sqrt{2\Omega-\Omega_n}}{2}}=\frac{\sqrt{\Omega_n}}{\sqrt{2\Omega-\Omega_n}} \quad (2).$$

$\Omega$ is the dimensionless frequency of the vibrations $\omega = \Omega\sqrt{\mu(\mu+\lambda)/3\varrho(2\mu+\lambda)} \cdot \frac{h}{H^2}$. $\lambda$ and $\mu$ are the Lame elastic constants; $\varrho$, h, H are density, thickness and width of the plate, $\Omega_n$ is the dimensionless natural frequency of the vibrations; $\omega$ is their angular frequency. The dimensionless phase velocity of the normal wave is $C_n = \Omega/\sqrt{\Omega-\Omega_n}$. The solutions of (1)-(2) in zeroth approximation are

$$\Omega^{\circ} = \frac{\Omega_n}{2\cos^2\frac{\sqrt{\Omega_n}}{2}} \quad n^2\pi^2 < \Omega_n < (n+1)^2\pi^2; \; n = 2k+1 \qquad (A)$$

$$\Omega^{\circ} = \frac{\Omega_n}{2\sin^2\frac{\sqrt{\Omega_n}}{2}} \quad n^2\pi^2 < \Omega_n < (n+1)^2\pi^2; \; n = 2k \qquad (B).$$

A virtually exact solution can be obtained by one more step of successive approximation:

S/046/62/008/003/005/007
B108/B104

AUTHOR: Konenkov, Yu. K. (Moscow)

TITLE: Waves in a viscous liquid

PERIODICAL: Akusticheskiy zhurnal, v. 8, no. 3, 1962, 320 - 324

TEXT: The motion of a viscous liquid subjected to a small perturbation can be described by the equations

$$\partial p/\partial t = -\varrho_0 c^2 \operatorname{div} \bar{u}$$
$$\varrho_0 \partial \bar{u}/\partial t = -\operatorname{grad} p + \eta \nabla^2 \bar{u} + (\xi + \eta/3) \operatorname{grad} \operatorname{div} \bar{u} = 0.$$

$\bar{u}$ is the velocity of displacement of the particles in the liquid, $\xi$ and $\eta$ are the coefficients of viscosity, $\varrho_0 c^2$ is the modulus of compression. This problem is solved for two concrete cases (free oscillations in a liquid bounded by plane rigid walls, bending oscillations of thin plate which is in contact with a viscous liquid on one side) by introducing a scalar potential $\varphi$ and a vector potential $\bar{\Psi}$ which satisfy the condition

Card 1/2





$\bar{u} = \operatorname{curl} \bar{\psi} + \operatorname{grad} \varphi$, and by a transition to the harmonic wave equations. Calculation by this method can also be used when heat-conduction losses have to be taken into account. In such a case new solutions of the wave equation are found. A real liquid has waves related to the thermal processes caused by compression and expansion of such a liquid. There is 1 table.

SUBMITTED: April 17, 1961

Card 2/2

KONENKOV, Yu.K. (Moskva)

Waves in a viscous fluid. Akust.zhur. 8 no.3:320-324 '62. (MIRA 15:11)

(Fluid dynamics) (Waves)

KONENKOV, Yu.K.

Diffraction of a deflective wave on a circular obstacle in a plate. Akust. zhur. 10 no.2:186-190 '64. (MIRA 17:6)

1. Vsesoyuznyy tsentral'nyy nauchno-issledovatel'skiy institut okhrany truda, Moskva.

L 63597-65 EEC(b)-2/EWA(h)/EWT(1) Pg-4/Pm-4/Po-4/Pq-4/Pl-4/Peb

ACCESSION NR: AP5016972 UR/0280/65/000/003/0104/0106

AUTHOR: Ushakov, I. A. (Moscow); Konenkov, Yu. K. (Moscow)

TITLE: One problem of spares in branching systems

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 3, 1965, 104-106

TOPIC TAGS: branching system, system reliability, component reserve

ABSTRACT: Numerous radioelectronic, biological, administrative, and other systems have a so-called branching structure. A failure of an element of i-th rank causes a breakdown in operation of all higher elements under its control. The authors propose a method for estimating the execution of a task by the highest order output (actuator) elements of a system with branching structure if these elements represent mutual spares (I. A. Ushakov, Y. K. Konenkov, Journal of Canadian Operations Research Society, 1964, 2, no. 2). The theoretical formulas are applied to a system for information transfer through three identical channels; for the purpose of increasing the reliability of such a transfer, the system multiplies the information by blocks with one input and three outputs. Orig. art. has: 11 formulas and 2 figures.

Card 1/2

L 63597-65

ACCESSION NR: AP5016972

ASSOCIATION: none

SUBMITTED: 25Jun64 ENCL: 00 SUB CODE: IE, DP

NO REF SOV: 001 OTHER: 001

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000824220015-7"

KONEV, F. A.

"Investigation of the Process of Filtration in Preparing Solutions for Injection." Cand Pharm Sci, Moscow Pharmaceutical Inst, Min Health USSR, Moscow, 1955. (KL, No 11, Mar 55)

SO: Sum. No. 670, 29 Sep 55--Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (15)

KONEV, F.A.; OBUKHOVSKIY, Ya.A.

Productivity of semiautomatic ampule machines. Med.prom. 12 no.4:27-32 Ap '58. (MIRA 11:5)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut.

(DRUG INDUSTRY--EQUIPMENT AND SUPPLIES)

AUTHORS: Konev, F.A., Kolesnikov, N.A., Kolesnikov, D.G. 32-3-49/52

TITLE: The Automation of the Filtering Process of Injection Solutions (Avtomatizatsiya protsessa fil'trovaniya in"yektsionnykh rastvorov)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 3, pp. 375-375 (USSR)

ABSTRACT: For the continuous and uniform feeding of suspensions onto the filter when filtering injection solutions an automatic system was developed. In principle the scheme consists of four coils, two selenium rectifiers and two relays which form part of a common circuit, which, by the rising or falling motion of an iron core (which is enclosed in a glass ampule and generates induction current) opens and closes an electromagnetic three-way faucet. The latter is mounted on the container of the liquid, which, besides, is connected with the vacuum as well as with the spare container for the liquid and with the filter. By the interaction between the vacuum and the three-way faucet connected with the atmosphere, which is connected with the level of the liquid (by a float), the container is always filled up again as soon as the level is reduced to a certain height, so that in this way a continuous feeding of

Card 1/2

The Automation of the Filtering Process of Injection Solutions

32-3-49/52

the filter is attained. There is 1 figure, and 1 reference, 1 of which is Slavic.

ASSCCIATION: Scientific Research Institute for Chemical Pharmaceutics, Khar'kov (Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut)

AVAILABLE: Library of Congress

1. Injection solutions-Filtering processes

Card 2/2

KONEV, F.A.

Filtration of injection solutions. Apt.delo 8 no.5:64-71 S-O '59. (MIRA 13:1)

1. Iz Khar'kovskogo nauchno-issledovatel'skogo khimiko-farmatsevticheskogo instituta.

(FILTERS AND FILTRATION)

KONEV, F.A.

Calculation of the productive capacity of apparatus in ampule manufacture. Med. prom. 13 no.8:48-53 Ag '59. (MIRA 13:80

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut.

(DRUG INDUSTRY)

KONEV, F.A.; OBUKHOVSKIY, Ya.A.

Obtaining deoxygenated distilled water. Med.prom. 13 no.11:28-31 N '59. (MIRA 13:3)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut.
(WATER, DISTILLED)

KONEV, F.A.; KARNAUKHOV, I.N.

Filtration of injection solutions and other liquids in pharmaceutical practice. Apt.delo 9 no.2:65-67 Mr-Ap '60.
(MIRA 13:6)

1. Iz Khar'kovskogo nauchno-issledovatel'skogo khimiko-farmatsevticheskogo instituta.
(FILTER AND FILTRATION) (PHARMACY)

KONEV, F.A.; KRAYNYUKOV, N.I.; KOVALENKO, V.S.

Determination of the durability of the capillaries of small ampules. Med. prom. 14 no.5:42-44 My '60. (MIRA 13:9)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut.

(DRUG INDUSTRY)

KONEV, F.A.; OBUKHOVSKIY, Ya.A.

Determination of gas composition and pressure in ampules with a solution. Med.prom. 14 no.6:38-41 Je '60. (MIRA 13:6)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut.
(SOLUTIONS (PHARMACY))

KONEV, F.A. [Koniev, F.A.]; KURCHENKO, I.N.

Studying the stability of ergotal injection solution. Farmatsev. zhur. 17 no.6:40-43 '62. (MIRA 17:6)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut.

KONEV, F.A. [Koniev, F.A.]; TIMOFEYEV, V.V. [Tymofiiev, V.V.]

Air purification from mechanical impurities. Khim. prom. [Ukr.] no.3:80-81 Jl-S '63. (MIRA 17:8)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut.

KULESH, K.F.; KONEV, F.A. [Koniev, F.A.]; BUGRIM, N.A. [Buhrim, N.A.]; Prinimali uchastiye: LAPKINA, A.M.; GENDENSHTEYN, Ye.I.

Increasing the production of prepared drugs by lowering the number of extemporaneous prescriptions of pharmacies. Farmatsev. zhur. 18 no.5:3-7 '63. (MIRA 17:8)

1. K'ar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut.

KONEV, F.A.; TIMOFEYEV, V.V.; FEDORCHENKO, I.M.; ANDRIYEVSKIY, R.A.

Ceramic metal filters for the filtration of air and water. Porosh. met. 4 no.6:84-88 N-D '64. (MIRA 18:3)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut i Institut problem materialovedeniya AN UkrSSR.

KURCHENKO, I.N.; KONEV, F.A.

Study of the stability of 5% thiamine chloride solutions for injections. Apt. delo 13 no.4:27-30 Jl-Ag '64. (MIRA 18:3)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut.

KONEV, F.A. [Kcniev, F.A.]

Liquid prepared drugs and prospects for their production.
Farmatsev.zhur. 19 no.1:6-9 '64. (MIRA 18:5)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut.

KULESH, K.F.; BURIM, N.A.; KONEV, F.A.

Replacing of extemporaneous drugs with tablets. Apt. delo 14 no.1:19-25 Ja-F '65. (MIRA 18:10)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut.

KURCHENKO, I.N.; KONEV, F.A. [Koniev, F.A.]

Study of the stability of ergotamine solution for injections. Farmatsev. zhur. 20 no.5:13-16 '65. (MIRA 18:11)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut. Submitted March 29, 1965.

KONENKOVA,N.; CHUBUKOVA,T.

Factory production of gypsum fiber slabs. Stroi.mat., izdel. i konstr. 1 no.8:24-26 Ag'55. (MIRA 8:11)

1. Zaveduyushchiy laboratoriyey Danilovskogo alebastrovogo zavoda (for Konenkova) 2. Nachal'nik tsekha Danilovskogo alebastrovogo zavoda (for Chubukova)

(Wallboard)

KONENKOVA-DAVIDENKO, T.D.

Some data on the clinical and experimental study of ganglionic blocking agents. Eksper. khir. i anest. 9 no.1:77-80 Ja-F '64. (MIRA 17:12)

1. Kafedra gospital'noy khirurgii No.2 (zav. - prof. D.P.Chukhriyenko) Dnepropetrovskogo meditsinskogo instituta.

KONERTH, C.

COUNTRY : RUMANIA

CATEGORY : Chemical Technology. Chemical Products and Their Applications. Leather. Fur. Gelatine.*

ABS. JOUR. : RZKhim., No. 19, 1959, No. 70136

AUTHOR : Petraru-Heller, C.; Konerth, C.

INST. : --

TITLE : Reasons for Tannide Losses Encountered in the Vegetable Tanning Processes

ORIG. PUB. : Ind. usoara, 1958, 5, No 11, 410-417

ABSTRACT : A review of literature and analysis of reasons pertaining to losses of tannides, encountered in vegetable tanning processes as a function of the tanning method, the assortment of manufactured leather products, the employed tanning medium, and the sedimentation characteristics of tanning solutions. A theoretical explanation of the nature of losses is presented. Methods of reducing losses are given for certain isolated cases. The bibliography covers 32 titles.-- G. Markus.

*Tanning Materials. Industrial Proteins.

CARD: 1/1



Study on the Rumanian hardwood as raw material for the pulp industry. Cel hirtie 10 no.7/8:217-225 Jl-Ag'61.

FISCHGOLD,S., ing.; POPESCU,G., biolog; ANTON, I., ing.; BUROVA,T., candidat stiinte tehnice; HERSCU,O., chim.; POPOVICI,M., chim.; PLATON,M., ing.; KONERTH,H., chim.

Some considerations on the utilization of beechwood for obtaining chemical pulp. Cel hirtie 10 no.7/8:225-231 Jl-Ag'61.

PLATON, M., ing.; CONSTANTINESCU, O., ing.; KONERTH, H., chim.

Use of waste materials from forestry operation and wood industry mills. Cel hirtie 10 no.7/8:235-242 Jl-Ag'61.

CONSTANTINESCU,O., ing.; ANTON.I., ing.; BUROVA,T., ing.; HOTOPELEANU,A., ing.; KONERTH,H., chim.; POPOVICI,M., chim.; HERSCU,O., chim.; PETREA,G., ing., PLATON,M., ing.

Obtaining SNS chemical and semichemical pulps from reed by means of continuous digesting in the Pandia type installation. Cel hartie 11 no.3:100-101 Mr.'62.

PLATON, M., ing.; CONSTANTINESCU, O., ing.; DRAGHICI, N., ing.; KONERTH, H. chim.; ANTON, I., ing.; BUROVA, T., ing.; FISCHGOLD, S., ing.; HOTOPELEANU, A., ing.

Industrial experiments in turning to account waste materials resulting from the exploitation and industrialization of wood. Cel hirtie 11 no.3:102-106 Mr'62.

ESANU,F., ing.; KONERTH, H., ing.; ANDRUCHOVICI, F., ing.; FISCHGOLD,S. ing.; POPESCU,G., biolog.; ANTON, I., ing.; POPOVICI, M. ing.; HOTOPELEANU,A., ing.; REICHMANN, E., ing.; CONSTANTINESCU,O., ing.

Studies on how to obtain an alkaline pulp (sulfate and natron) from straw by continuous digesting in a Pandia type installation. Cel. hirtie 11 no.6:205-219 Je '62

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